

MULTICARRIER EQUALISER BASED ON KRAKOVIAN ALGEBRA

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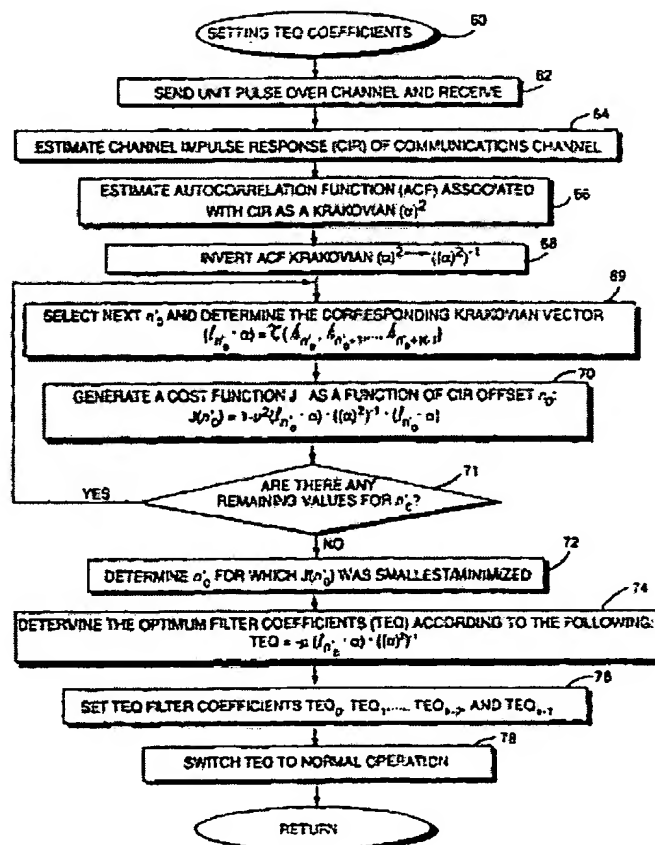
Cited documents:

EP0793369
WO9950969
XP002079089
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Abstract of WO0069134

The present invention provides an optimal procedure for determining in the time domain equalizer coefficients for an equalizer, where the equalizer compensates for the effects of the communications channel on the transmitted signal. A unit pulse or other training sequence which allows determination of the impulse response is transmitted over the communications channel, and a channel impulse response is estimated from the received signal. A cost function establishes a mean-square error associated with the estimated channel impulse response as compared to a desired impulse response signal. The value of the cost function varies based upon an offset value between the estimated channel impulse response and an equalized channel impulse response. Values of the cost function are determined for different offsets, and the offset that produces the smallest cost function value (corresponding to the minimum mean-square error) is selected. The optimal equalizer coefficients are then calculated using the selected offset and the established cost function.



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